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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/427,802	10/27/1999	BAHRAM GHAFFARZADEH KERMANI	KERMANI-14	3789

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EXAMINER
HIRL, JOSEPH P

ART UNIT	PAPER NUMBER
2122	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

Offic **Action Summary**	Applicati n N . 09/427,802	Applicant(s) KERMANI, BAHRAM GHAFFARZADEH
	Examiner Joseph P. Hirl	Art Unit 2121

-- The MAILING DATE of this communicati n appears on the cover sheet with the correspondence address --

Peri d f r Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____ .

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-20_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-20_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _4,5_ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

DETAILED ACTION

1.   Claims 1 – 20 are pending in this application.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of
> making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the
> art to which it pertains, or with which it is most nearly connected, to make and use the same and shall
> set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 2 is rejected under 35 U.S.C. 112, first paragraph, as containing subject

matter which was not described in the specification in such a way as to enable one

skilled in the art to which it pertains, or with which it is most nearly connected, to make

and/or use the invention. The term "optical rules" is not defined by the disclosure.

Claim 16 is rejected under 35 U.S.C. 112, first paragraph, as containing subject

matter which was not described in the specification in such a way as to enable one

skilled in the art to which it pertains, or with which it is most nearly connected, to make

and/or use the invention. The term "particular stock choice" is not defined by the

disclosure or referenced to the database used therein. The selection of the data for the

database may establish feasible performance for the proposed invention.

Claim 17 is rejected under 35 U.S.C. 112, first paragraph, as containing subject

matter which was not described in the specification in such a way as to enable one

skilled in the art to which it pertains, or with which it is most nearly connected, to make

and/or use the invention. The term "particular stock market" is not defined by the

disclosure or referenced to the database used therein. The selection of the data for the

database may establish feasible performance for the proposed invention.

Claim 19 is rejected under 35 U.S.C. 112, first paragraph, as containing subject

matter which was not described in the specification in such a way as to enable one

skilled in the art to which it pertains, or with which it is most nearly connected, to make

and/or use the invention. The term "mutual funds" is not defined by the disclosure or

referenced to the database used therein. The selection of the data for the database

may establish feasible performance for the proposed invention.

Claim 20 is rejected under 35 U.S.C. 112, first paragraph, as containing subject

matter which was not described in the specification in such a way as to enable one

skilled in the art to which it pertains, or with which it is most nearly connected, to make

and/or use the invention. The term "futures" is not defined by the disclosure or

referenced to the database used therein. The selection of the data for the database

may establish feasible performance for the proposed invention.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Claims 1,2, 7 – 9, 14 - 20 are rejected under 35 U.S.C. 102(b) as being

anticipated by Chidambaran et al (IEEE 98TH8367, referred to as **Chidambaran).**

Claim 1

Chidambaran anticipates generating a pool of random rules having a fitness

function and storing said random rules (**Chidambaran**, page 199, lines 6 – 9); evolving

said random rules using a genetic algorithm to improve the fitness function of said rules

in said random rule set until the overall fitness function of said rules plateaus, thereby

generating an optimized rule (**Chidambaran**, page 199, lines 25 – 27); and

storing said optimized rule in an optimized rule storage area, said rules stored in said

optimized rule storage area comprising said optimized rule set (**Chidambaran**, page

199, lines 27 – 28).

Claim 2

This claim cannot be evaluated since the disclosure does not enable "optical

rules". If however, it was intended that optical should be "*optimized*", then the following

evaluation is appropriate.

Chidambaran anticipates checking said optimized rule storage area to determine

if it contains any optimized rules (**Chidambaran**, page 200, lines 3 – 4); and using any

optimized rules contained in said optimized rule storage area when generating said pool

of random rules (**Chidambaran**, page 200, lines 3 – 4).

Claim 7

Chidambaran anticipates said generating, evolving, and storing steps are

repeated until a predetermined number of rules are stored as said optimized rule set

(**Chidambaran**, page 202, lines 18 – 20).

Claim 8

Chidambaran anticipates said repeating of said steps occurs on a real-time basis

(**Chidambaran**, page 200, lines 5 – 7).

Claim 9

Chidambaran anticipates generating a pool of random rules having a fitness

function and storing said random rule (**Chidambaran**, page 199, lines 6 – 9); evolving

said random rules using a genetic algorithm to improve the fitness function of said rules

in said random rule set until the overall fitness function of said rules plateaus, thereby

generating an optimized rule (**Chidambaran**, page 199, lines 25 – 27); storing said

optimized rule in an optimized rule storage area, said rules stored in said optimized rule

storage area comprising said optimized rule set; applying a stock market data set to

said optimized rule set (**Chidambaran**, page 199, lines 27 – 28); and outputting a stock

market analysis result based on the application of said stock market data set to said

optimized rule set (**Chidambaran**, page 197, lines 13 – 15).

Claim 14

Chidambaran anticipates said generating, evolving, and storing steps are

repeated until a predetermined number of rules are stored as said optimized rule set

(**Chidambaran**, page 202, lines 18 – 20).

Claim 15

Chidambaran anticipates said repeating of said steps occurs on a real-time basis

(**Chidambaran**, page 200, lines 5 – 7).

Claim 16

This claim cannot be evaluated since it was not enabled by the disclosure.

However, if it were enabled, the following evaluation would be appropriate.

Chidambaran anticipates said stock market data set comprises data regarding a

particular stock choice (**Chidambaran**, page 202, lines 18 – 20).

Claim 17

This claim cannot be evaluated since it was not enabled by the disclosure.

However, if it were enabled, the following evaluation would be appropriate.

Chidambaran anticipates said stock market data set comprises data regarding a

particular stock market (**Chidambaran**, page 202, lines 18 – 20).

Claim 18

Chidambaran anticipates said stock market data set comprises data regarding

comprising a particular segment of stocks (**Chidambaran**, page 202, lines 18 – 20).

Claim 19

This claim cannot be evaluated since it was not enabled by the disclosure.

However, if it were enabled, the following evaluation would be appropriate.

Chidambaran anticipates said stock market data set comprises data regarding

comprising mutual funds (**Chidambaran**, page 201, lines 4 – 12).

Claim 20

This claim cannot be evaluated since it was not enabled by the disclosure.

However, if it were enabled, the following evaluation would be appropriate.

Chidambaran anticipates said stock market data set comprises data regarding

comprising futures (**Chidambaran**, page 197, lines 13 – 15).

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3 – 6 and 10 – 13 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Chidambaran et al in view of Hung (IEEE 98TH8367, referred to as

Chidambaran; U. S. Patent 5,727,130, referred to as **Hung**).

Claim 3

Chidambaran does not teach said evolving step comprises evolving the features

of said random rules. However, Hung does teach said evolving step comprises evolving

the features of said random rules (**Hung**, col 123, lines 6 – 10). Therefore it would have

been obvious to one of ordinary skill in the art at the time the invention was made to use

the teachings of Hung's interface of genetic algorithms with fuzzy logic systems to

eliminate manually building fuzzy systems (Hung, col 3, lines 18 – 20).

Claim 4

Chidambaran does not teach said evolving step comprises evolving the qualifiers

of said random rules. However, Hung does teach said evolving step comprises evolving

the qualifiers of said random rules (**Hung**, col 123, lines 6 – 10). Therefore it would

have been obvious to one of ordinary skill in the art at the time the invention was made

to use the teachings of Hung's interface of genetic algorithms with fuzzy logic systems

to eliminate manually building fuzzy systems (Hung, col 3, lines 18 – 20).

Claim 5

Chidambaran does not teach said evolving step comprises evolving the

operators of said random rules. However, Hung teaches said evolving step comprises

evolving the operators of said random rules (**Hung**, col 123, lines 6 – 10). Therefore it

would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teachings of Hung's interface of genetic algorithms with fuzzy logic systems to eliminate manually building fuzzy systems (Hung, col 3, lines 18 – 20).

Claim 6

Chidambaran does not teach said evolving step comprises evolving the features, cases, qualifiers, and operators of said random rules. However, Hung teaches said evolving step comprises evolving the features, cases, qualifiers, and operators of said random rules (**Hung**, col 123, lines 6 – 10). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teachings of Hung's interface of genetic algorithms with fuzzy logic systems to eliminate manually building fuzzy systems (Hung, col 3, lines 18 – 20).

Claim 10

Chidambaran does not teach said evolving step comprises evolving the features of said random rules. However, Hung teaches said evolving step comprises evolving the features of said random rules (**Hung**, col 123, lines 6 – 10). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teachings of Hung's interface of genetic algorithms with fuzzy logic systems to eliminate manually building fuzzy systems (Hung, col 3, lines 18 – 20).

Claim 11

Chidambaran does not teach said evolving step comprises evolving the qualifiers of said random rules. However, Hung teaches said evolving step comprises evolving the qualifiers of said random rules (**Hung**, col 123, lines 6 – 10). Therefore it would

have been obvious to one of ordinary skill in the art at the time the invention was made

to use the teachings of Hung's interface of genetic algorithms with fuzzy logic systems

to eliminate manually building fuzzy systems (Hung, col 3, lines 18 – 20).

Claim 12

Chidambaran does not teach said evolving step comprises evolving the

operators of said random rules. However, Hung teaches said evolving step

comprises evolving the operators of said random rules (**Hung**, col 123, lines 6 – 10).

Therefore it would have been obvious to one of ordinary skill in the art at the time the

invention was made to use the teachings of Hung's interface of genetic algorithms with

fuzzy logic systems to eliminate manually building fuzzy systems (Hung, col 3, lines 18

– 20).

Claim 13

Chidambaran does not teach said evolving step comprises evolving the features,

cases, qualifiers, and operators of said random rules. However, Hung teaches said

evolving step comprises evolving the features, cases, qualifiers, and operators of said

random rules (**Hung**, col 123, lines 6 – 10). Therefore it would have been obvious to

one of ordinary skill in the art at the time the invention was made to use the teachings of

Hung's interface of genetic algorithms with fuzzy logic systems to eliminate manually

building fuzzy systems (Hung, col 3, lines 18 – 20).

Conclusion

5.   The prior art of record and not relied upon is considered pertinent to

applicant's disclosure.

U.S. Patent Literature

U. S. Patent 6,324,529, November 27, 2001

Anticipates in part Claims 1 – 20 (Abstract and Figures 1 – 21)

Non-Patent Literature

IEEE INSPEC 6282787, May 7, 1999

Anticipates in part Claims 1 – 20 (Abstract and Figures 1 – 21)

6.   Disclosure was anticipated by Chidambaran et al in view of Hung.

Correspondence Information

Any inquiry concerning this information or related to the subject disclosure

should be directed to the Examiner, Joseph P. Hirl, whose telephone number is

(703) 305-1668. The Examiner can be reached on Monday – Thursday from

6:00 a.m. to 4:30 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the

Examiner's supervisor, Thomas G. Black can be reached at (703) 305-9707.

Any response to this office action should be mailed to:

Commissioner of Patents and Trademarks,

Washington, D. C. 20231;

or faxed to:

(703) 746-7239 (for formal communications intended for entry);

or faxed to:

(703) 746-7240 (for informal or draft communications with notation of
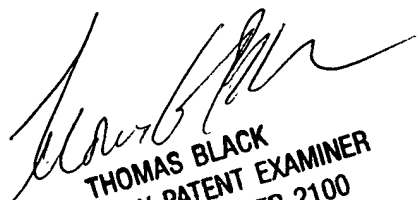
"Proposed" or "Draft").

Hand-delivered responses should be brought to:

Receptionist,

Crystal Park II,

2121 Crystal Drive,

Arlington, Virginia.

Joseph P. Hirl

February 13, 2002

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